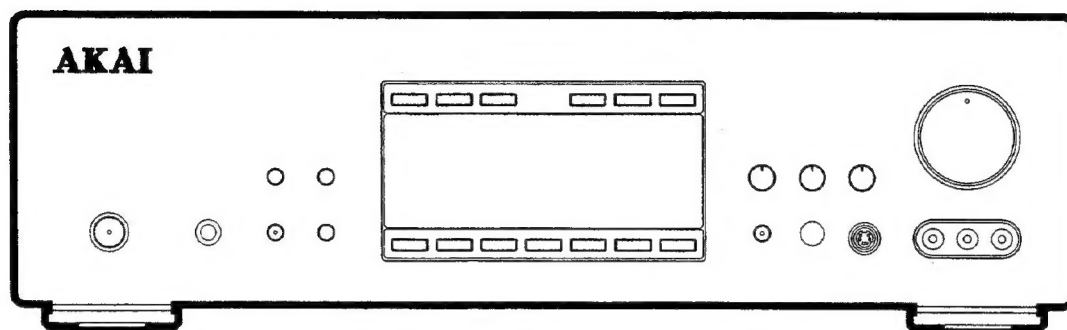


AKAI SERVICE MANUAL



PRO LOGIC AMPLIFIER

SPECIFICATIONS

MODEL AM-4000DPL

● Amplifier(When Surround is "OFF")

1KHz continuous power	: 2ch × 100W, 4 Ω
T. H. D.	: 0.09% (1KHz/100W/4 Ω)
S/N Ratio	
PHONO(IHF-A)	: 70dB
TUNER, TAPE	: 90dB
CD, AUX	: 90dB
Sensitivity and impedance	
PHONO	: 2.6mV/47K Ω
TUNER	: 180mV/47K Ω
CD	: 180mV/47K Ω
AUX	: 180mV/47K Ω
Frequency Response	
PHONO (RIAA STANDARD CURVE)	
	: 30Hz~15KHz(±0.8dB)
TUNER	: 30Hz~70KHz
CD	: 30Hz~70KHz
AUX	: 30Hz~70KHz

● Amplifier

- When Surround is "ON"
1KHz continuous output
3channel system : 3ch × 50W, 4 Ω
T. H. D. : 1KHz/4 Ω
Center : 0.09%
Rear : 0.9%
Front : 0.09%
- When Dolby Pro logic is "ON"
Frequency Response
Center : 30Hz~50KHz
Rear : 100Hz~6KHz
Front : 30Hz~50KHz
S/N Ratio
Left, Right, Center(Weighted) : 70dB
Rear(Weighted) : 60dB

● General

Power consumption	: 340W
Power supply	: 230V, 50Hz
Dimension(W × H × D)	: 438 × 130.5 × 423.5mm
Weight	: 17Kg

Standard accessories

Remote control unit1
Operator's manual1

* For improvement purposes, specifications and design are subject to change without notice.

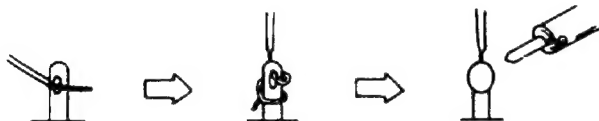
CONTENTS

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SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the \triangle (*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples :RF converters, tuner units, antenna selectswitches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially :
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers(insulating barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.



Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

SAFETY CHECK AFTER SERVICING

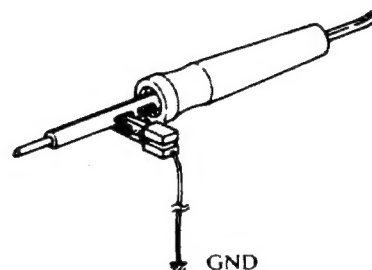
After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit. The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μ F capacitor, under the unit's normal working conditions.

The leakage-current should be less than 0.5mA rms AC. The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2M Ohms.

PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points.

1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair adjustment, make sure that there are no metal objects in the narrow gap between the P. C. board or the mecha parts and the base
3. The Micro-Computer and the CD signal processing ICs can be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



4. Do not loosen any screws in the pick-up block. When handling the pick-up block, please refer to the points to NOTE when replacing the pick-up block.
5. Keep safety for hazardous invisible Laser Radiation, DO NOT watch the Laser Beam (Objective lens) directly.
6. Models for some countries, laser warning labels are affixed on the unit and inside of the unit, as shown below. Read it carefully for your safety, when repairing or adjusting the unit.

INFORMATION

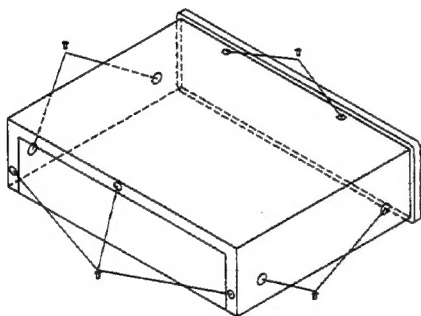
SYMBOLS FOR PRIMARY DESTINATION

Primary destination of units are indicated with the following alphabet.

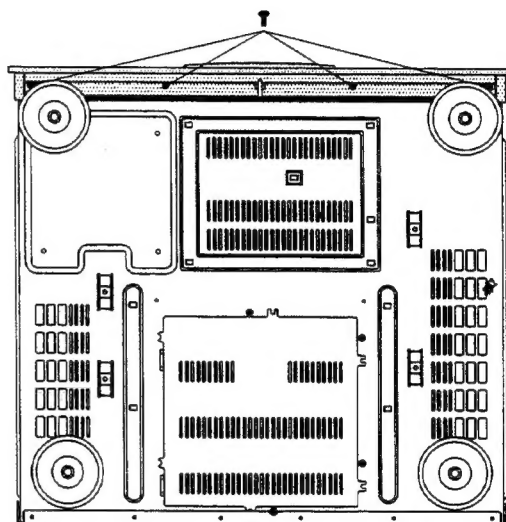
Symbols	Principal Destinations
B	UK
E	Europe (except UK)
S	Australia
U	Universal Area
Y*	Custom version

I . DISASSEMBLY

1) REMOVAL OF TOP COVER

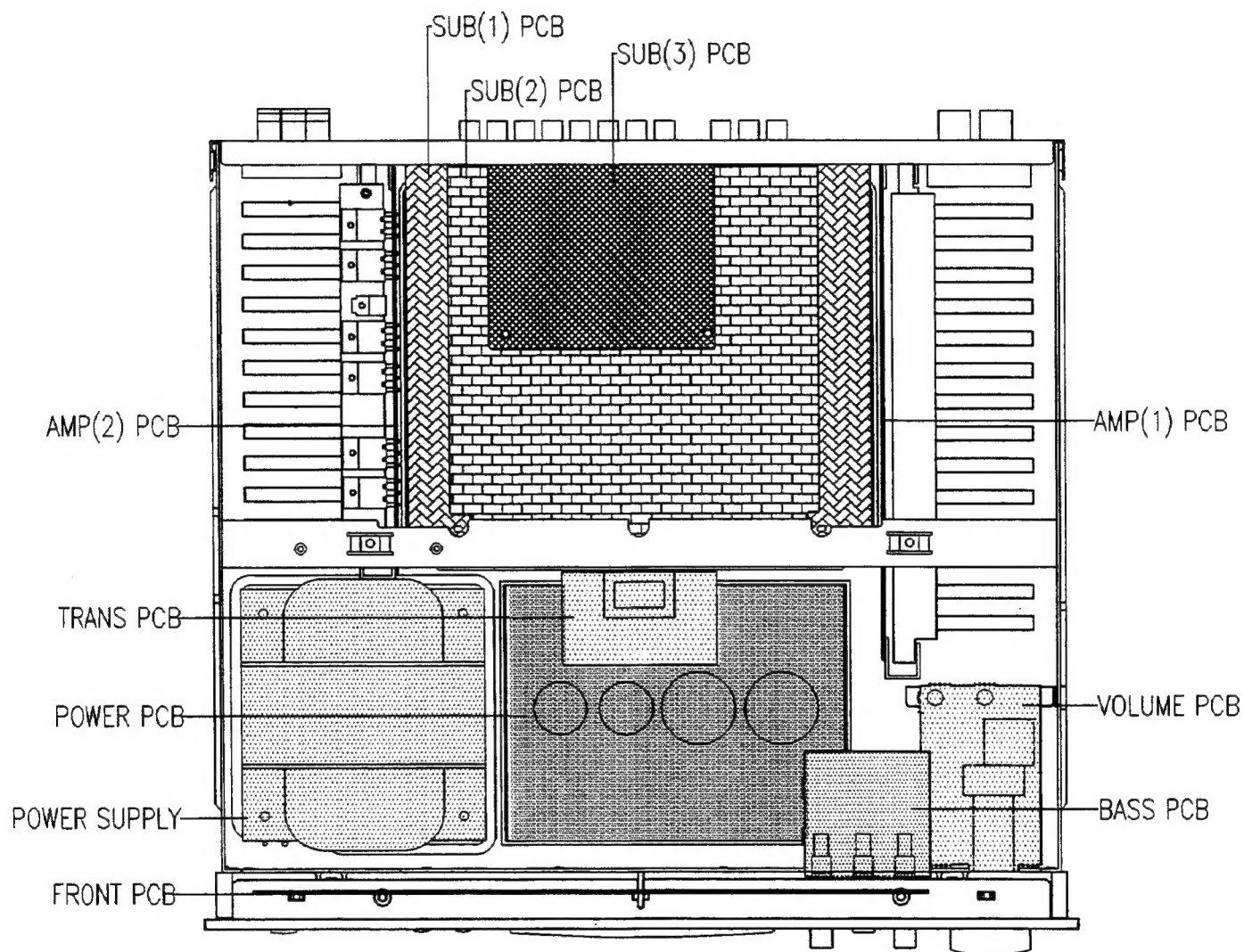


2) REMOVAL OF FRONT PANEL

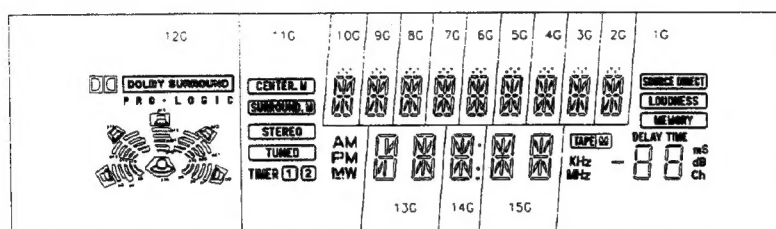


Remove the four screws by pulling them out.

II . PRINCIPAL PARTS LOCATION

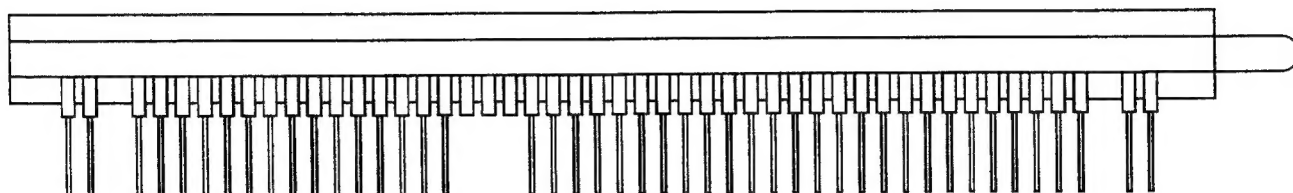


III. FIP DISPLAY



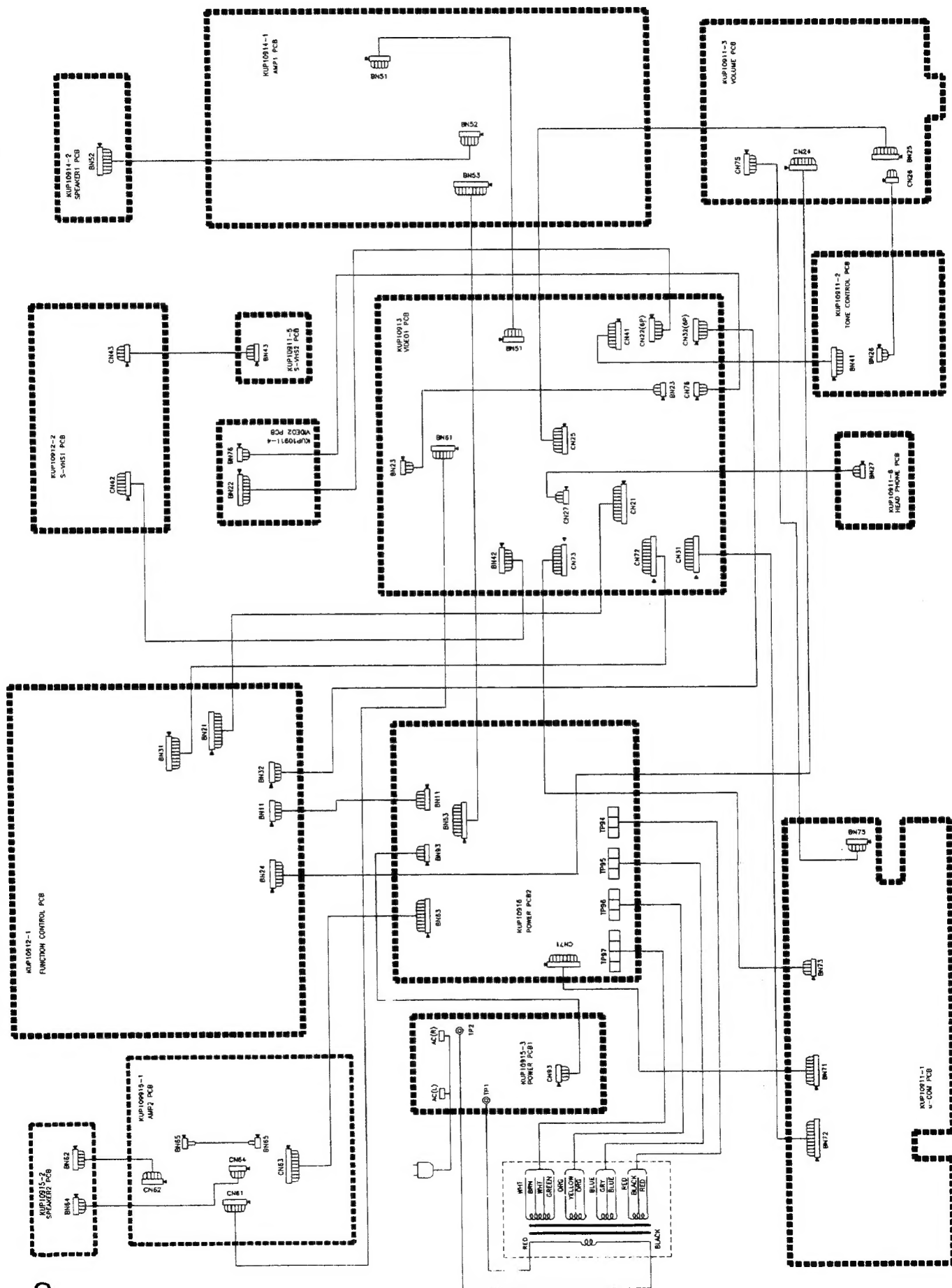
	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	2d		2d	DOLBY SURROUND PRO-LOGIC	I	S1	S1	S1	S1	S1	S1	S1	S1	S1	SOURCE, DIRECT
P2	2p		2p		-	S2	S2	S2	S2	S2	S2	S2	S2	S2	LOUDNESS
P3	2r		2r		W	S3	S3	S3	S3	S3	S3	S3	S3	S3	MEMORY
P4	2n		2n		.	S4	S4	S4	S4	S4	S4	S4	S4	S4	DELAY TIME
P5	2e		2e		W	a1	a1	a1	a1	a1	a1	a1	a1	a1	
P6	2c		2c			a2	a2	a2	a2	a2	a2	a2	a2	a2	MHz
P7	2g		2g			j	j	j	j	j	j	j	j	j	KHz
P8	2f		2f		FM	h	h	h	h	h	h	h	h	h	Ch
P9	2b		2b		AM	k	k	k	k	k	k	k	k	k	dB
P10	2k		2k			b	b	b	b	b	b	b	b	b	ms
P11	2h		2h		2	f	f	f	f	f	f	f	f	f	2d
P12	2j		2j		1	g	g	g	g	g	g	g	g	g	2e
P13	2a		2a		TIMER	m	m	m	m	m	m	m	m	m	2c
P14	1d	1d	1d		TUNED	c	c	c	c	c	c	c	c	c	2g
P15	1p	1p	1p		STEREO	e	e	e	e	e	e	e	e	e	2f
P16	1r	1r	1r		SURROUND, M	n	n	n	n	n	n	n	n	n	2b
P17	1n	1n	1n		CENTER, W	f	f	f	f	f	f	f	f	f	2a
P18	1e	1e	1e			p	p	p	p	p	p	p	p	p	TAPE 00
P19	1c	1c	1c			d1	d1	d1	d1	d1	d1	d1	d1	d1	-
P20	1g	1g	1g			d2	d2	d2	d2	d2	d2	d2	d2	d2	1d
P21	1f	1f	1f												1e
P22	1b	1b	1b												1c
P23	1k	1k	1k												1g
P24	1h	1h	1h												1f
P25	1j	1j	1j												1b
P26	1a	1a	1a												1a

PIN CONNECTION

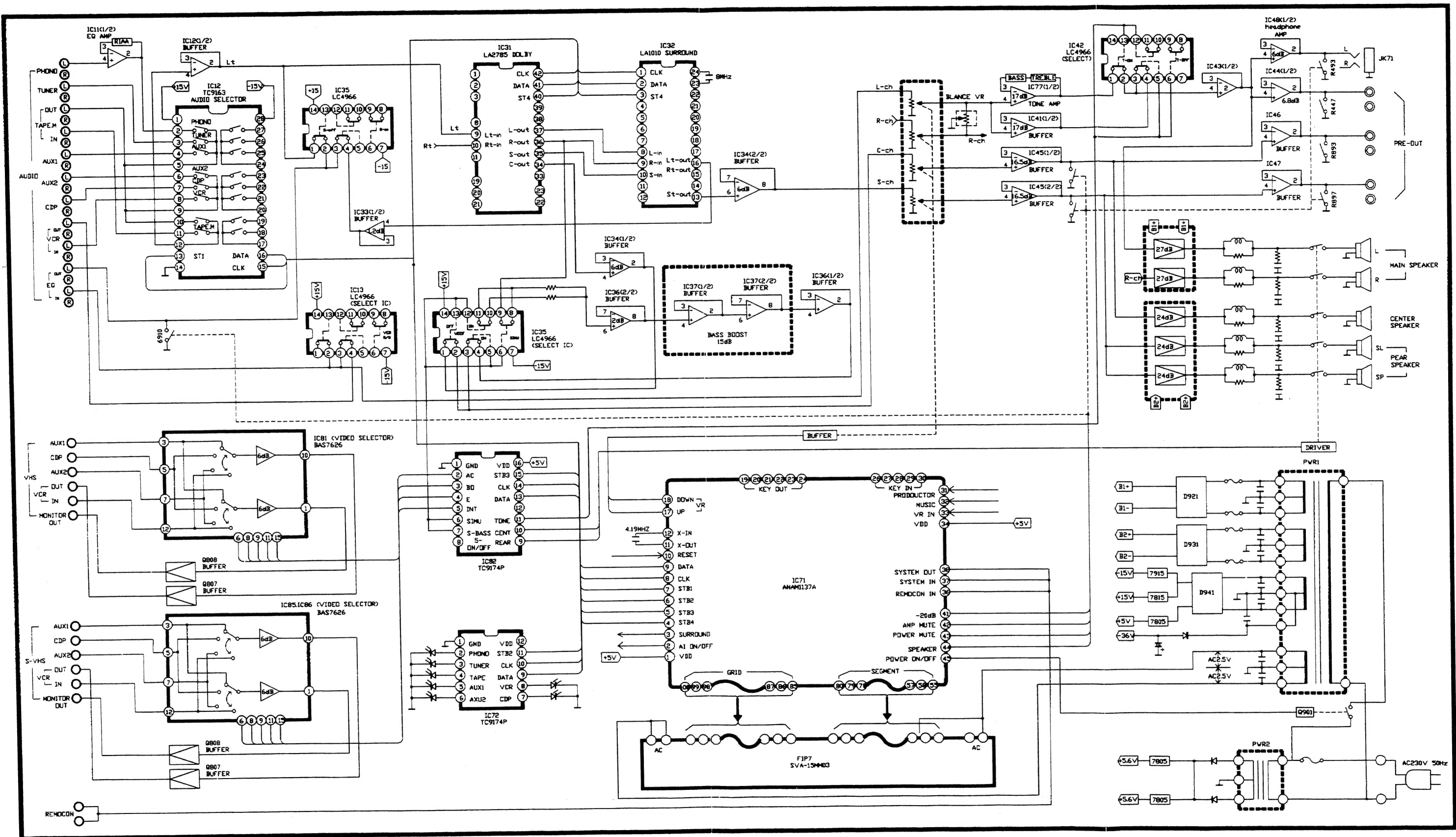


PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CONNECTION	F	F	NP	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G
PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CONNECTION	3G	2G	1G	NX	NX	NX	P1	P2	P3	P4	P5	P6	P7	P8	P9
PIN NO.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
CONNECTION	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24
PIN NO.	46	47	48	49	50										
CONNECTION	P25	P25	NP	F	F										

IV. WIRING DIAGRAM



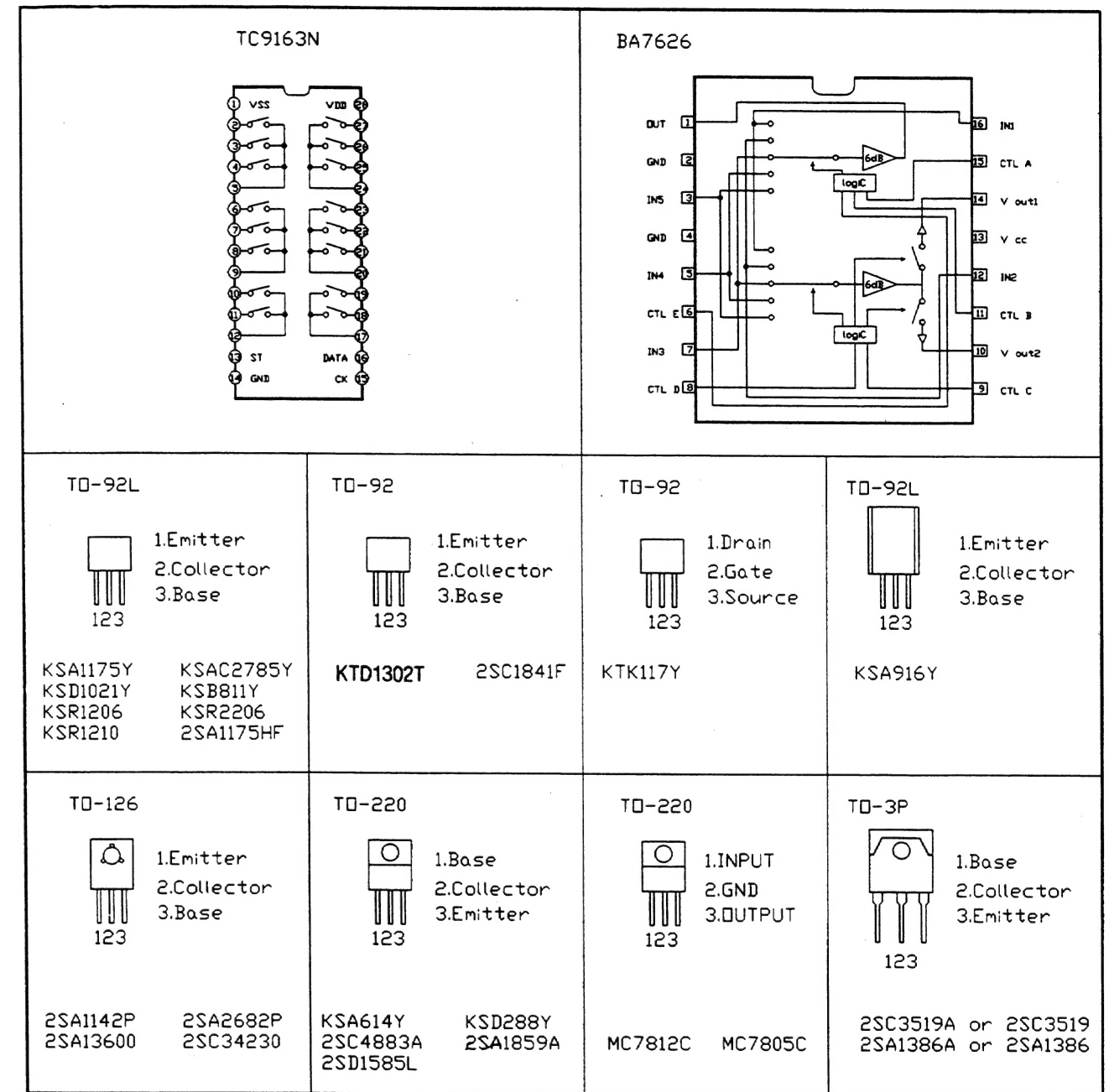
V. BLOCK DIAGRAM



IC 71 [ANAM 1137A(NEC : UPD78P0204GF)]μ-COM

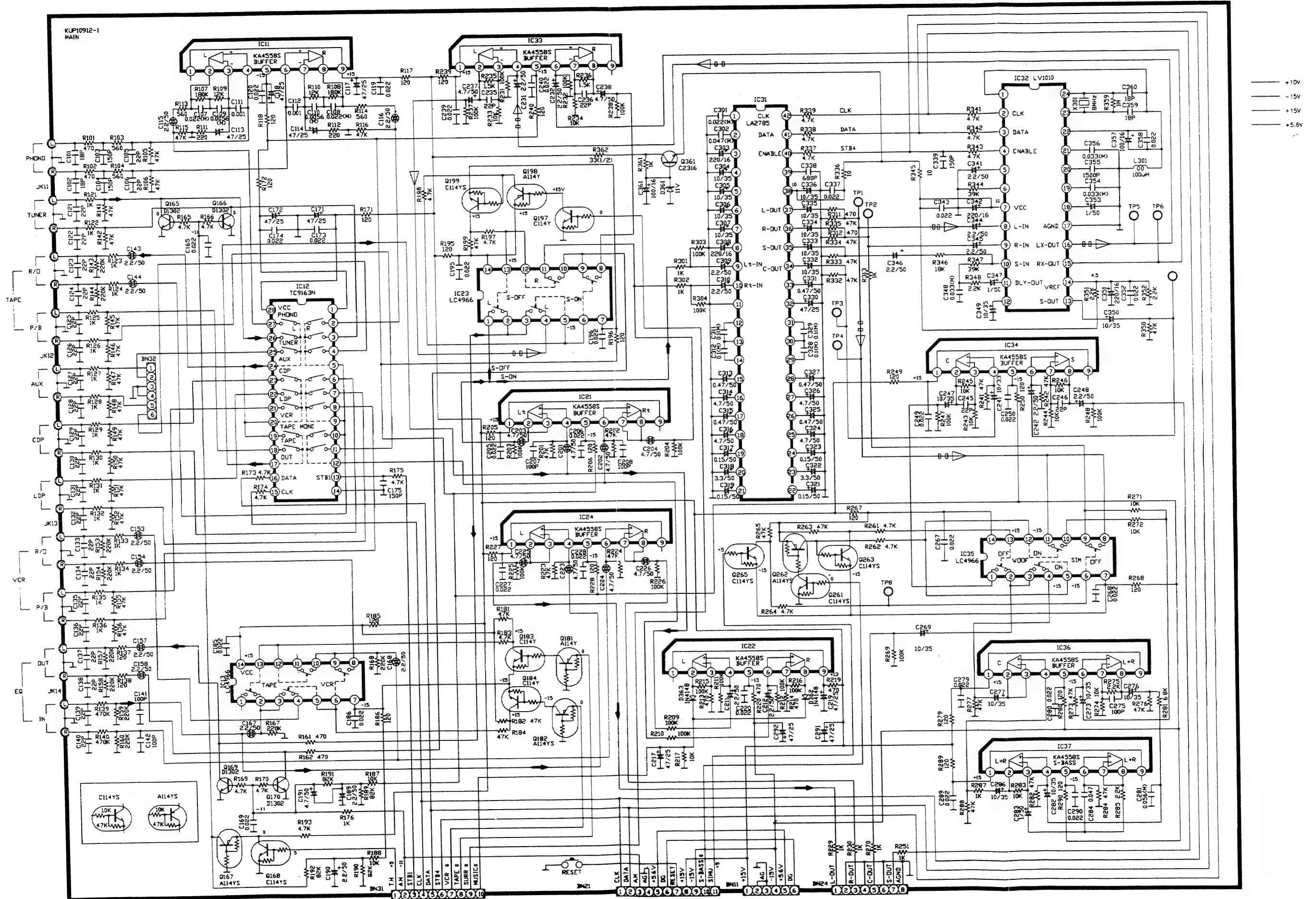
NO.	SYMBOL	I/O	DESCRIPTION	NO.	SYMBOL	I/O	DESCRIPTION
1	V _{DD}	I	Power Supply	30	Protector	I	Protector input port
2	AI(ON/OFF)	I/O	AI LED Port	32	Music	I	Music input port
3	Surround	I/O	Surround ON/OFF	33	VR position	I	VR position input port
4	STB4	I/O	LA2785, LV1010 Control	34	AV _{DD}	I	Analog power supply
5	STB3	I/O	IC82, TP9174 Control	35	AV _{REF}	I	Analog Reference Voltage
6	STB2	I/O	IC72, TP9174 Control	36	System in	I/O	System control port
7	STB1	I/O	IC12, TP9163 Control	37	System out	I/O	
8	CLK	I/O	Serial Clock	38	CE	I/O	Back-up control port
9	DATA	I/O	Serial Data	39	Remocon in	I/O	Remote control port
10	Reset	I	Reset	40	V _{SS}	I	Ground
11	X-OUT	O	OSC output port	41	-20dB	I/O	-20dB Mute port
12	X-IN	I	OSC input port	42	Amp mute	I/O	Signal Mute port
13	V _{PP}	I	GND	43	Power mute	I/O	Power Mute port
14	XT2	O	N-C	44	Speaker	I/O	Speaker ON/OFF
15	XT1	I	Option	45	Power	I/O	Power LED port
16	V _{DD}	I	Power supply	46	V _{DD}	I	Power supply
17	VR down	I/O	VR down control	47~54	FIP	I/O	N-C
18	VR up	I/O	VR up control	55~78	FIP	I/O	Segment
19~24	Key out	I/O	Key out Serial port	79	V _{Load}	I	Negative Power supply
25	AV _{SS}	I	Analog Ground	80~81	FIP	I	Segment
26~29	Key in	I/O	Key in serial port	82~84	FIP	I/O	N-C
30	VR LED	I/O	VR LED port	85~100	FIP		GRID

IC BLOCK DIAGRAM



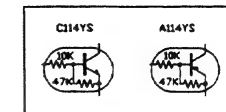
VI. SCHEMATIC DIAGRAMMAIN SCHEMATIC DIAGRAM

- IMPORTANT SAFETY NOTICE: COMPONENTS IDENTIFIED BY Δ MARK HAVE SPECIAL CHARACTERISTICS. IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY MANUFACTURER'S SPECIFIED PARTS.
- THE UNIT OF RESISTANCE IS OHM (Ω)
- K=1000 OHM, M=1000 KOHM
- THE UNIT OF CAPACITANCE IS MICROFARAD (μ F).
- THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

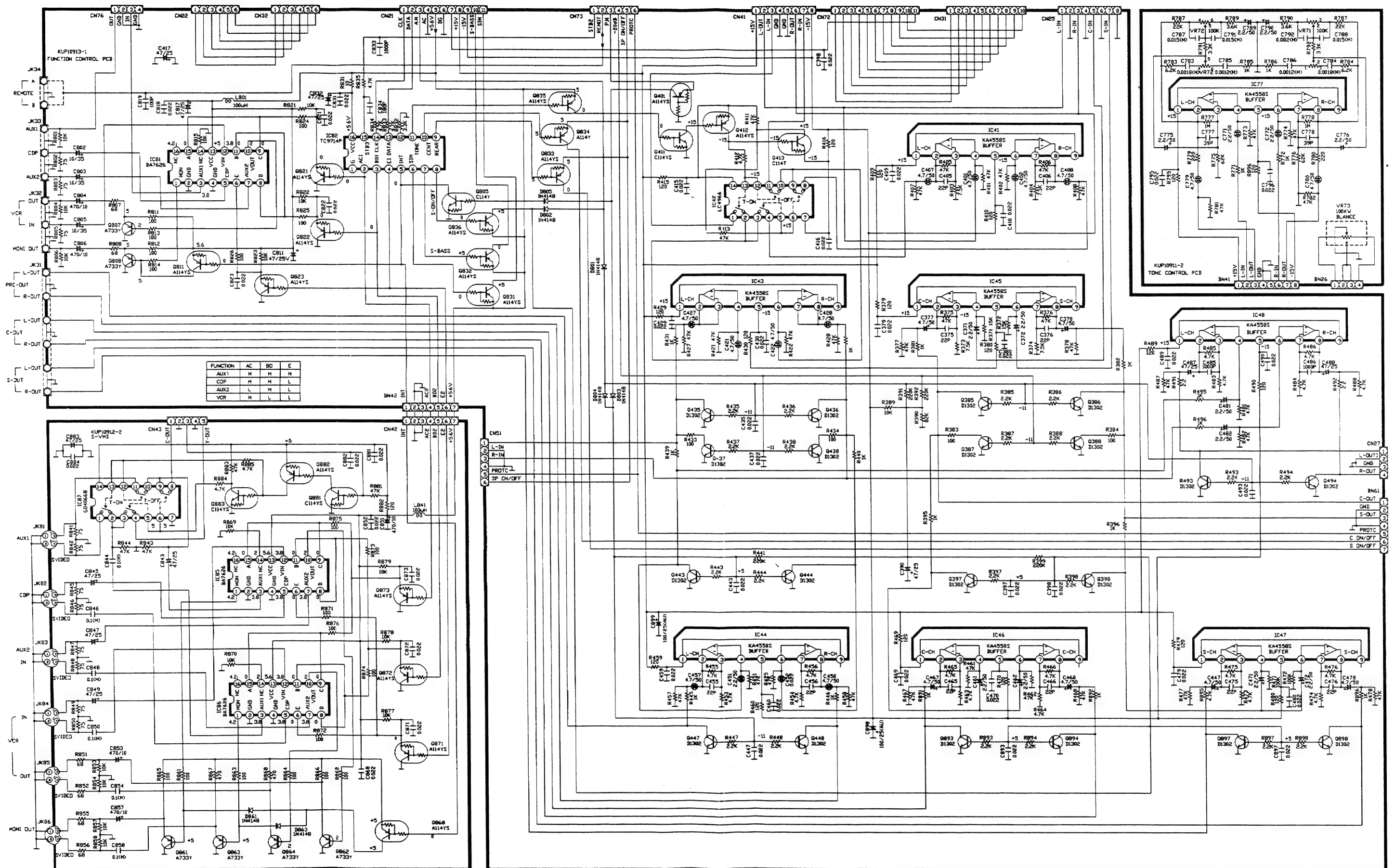


SUB SCHEMATIC DIAGRAM

— -15V
— +15V
— 5.6V



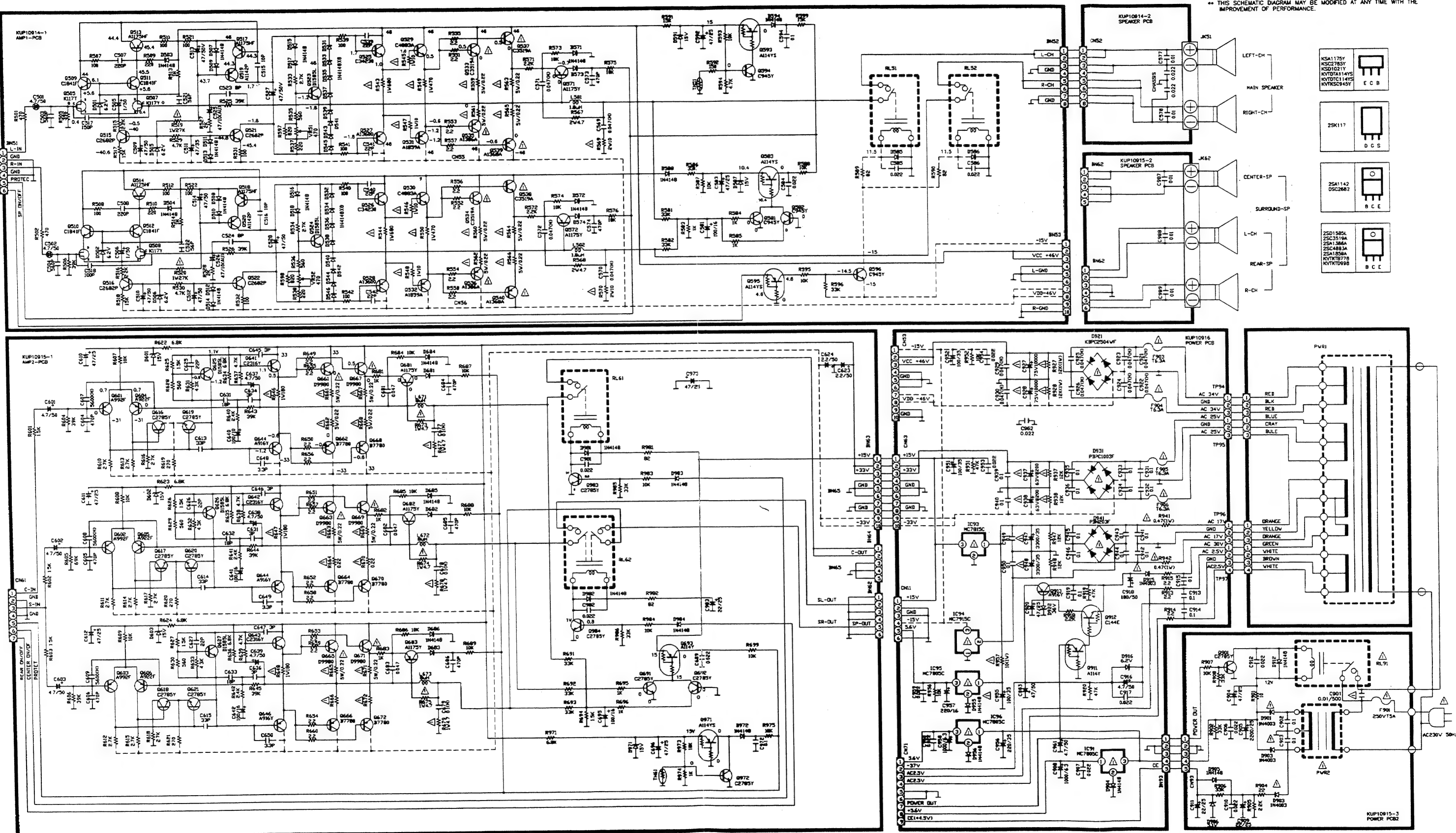
- IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY Δ MARK HAVE SPECIAL CHARACTERISTICS.
IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY MANUFACTURER'S SPECIFIED PARTS.
THE UNIT OF RESISTANCE IS OHM (Ω).
K=1000 OHM, M=1000 KOHM
THE UNIT OF CAPACITANCE IS MICROFARAD (μ F).
P=10⁻⁶ μ F
THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE
IMPROVEMENT OF PERFORMANCE.



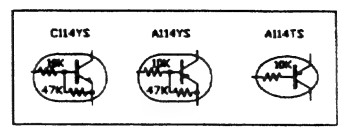
AMP SCHEMATIC DIAGRAM

--- +48V
--- +15V
--- +13V
--- +5V
--- -15V
--- -13V
--- -5V
--- -37V

△ IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY △ MARK HAVE SPECIAL CHARACTERISTICS.
IMPORTANT FOR SAFETY: WHEN REPLACING ANY OF THESE COMPONENTS
USE ONLY MANUFACTURER'S SPECIFIED PARTS.
△ THE UNIT OF RESISTANCE IS OHM (Ω)
K=1000 OHM, M=1000 KOHM
△ THE UNIT OF CAPACITANCE IS MICROFARAD (μF)
P=10⁻¹² F
△ THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE
IMPROVEMENT OF PERFORMANCE.



KUP10911-1
n-COM PCB



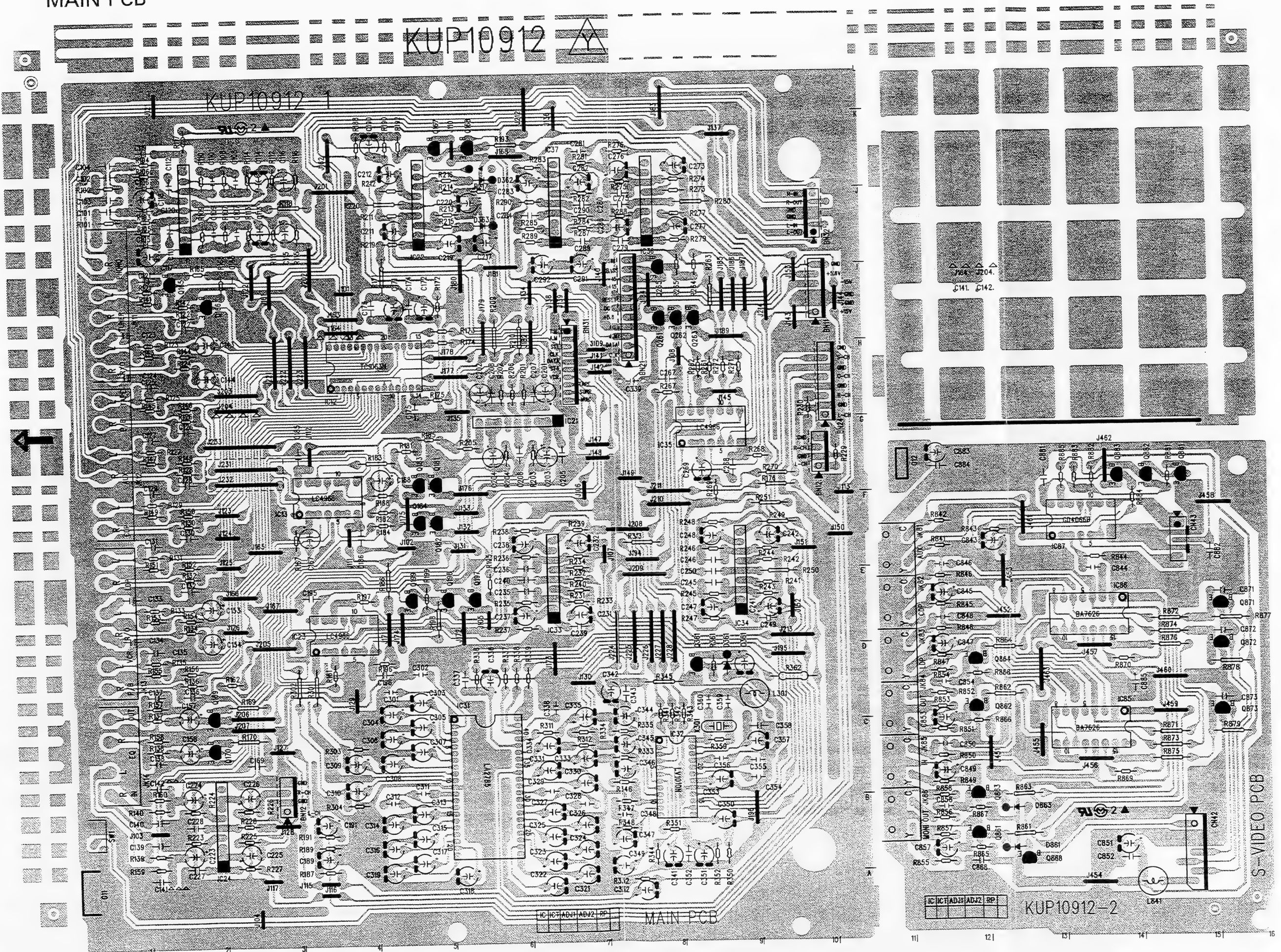
- **IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED BY Δ MARK HAVE SPECIAL CHARACTERISTICS, IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.
- THE UNIT OF RESISTANCE IS OHM (Ω)
 $K=1000\text{ OHM}$, $M=1000\text{ KOHM}$
- THE UNIT OF CAPACITANCE IS MICROFARAD (μF).
 $P=10^{-12}\text{ }\mu F$
- THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE IMPROVEMENT OF PERFORMANCE.

_____ +5.6V

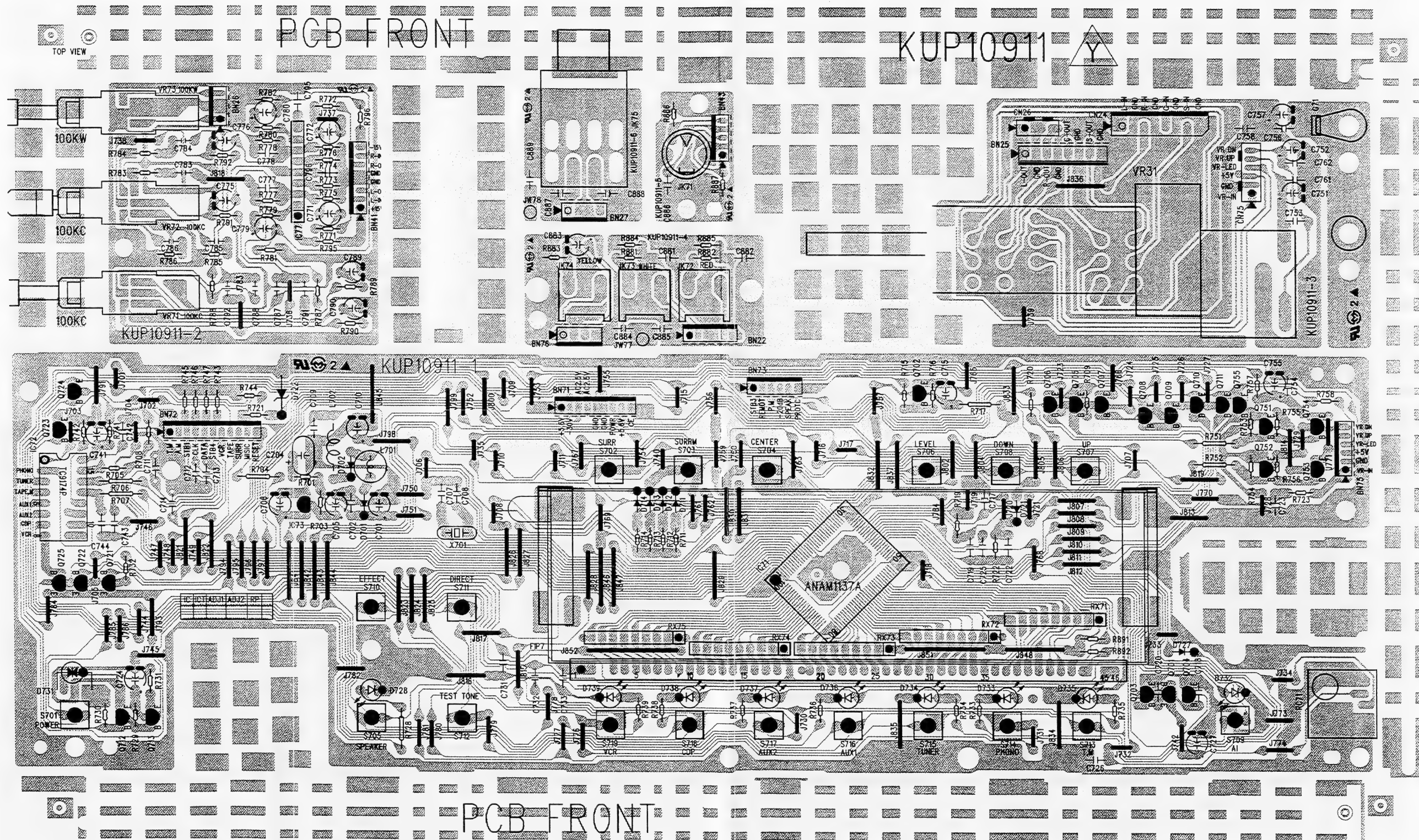
_____ +5.0V

VII. PRINTED CIRCUIT BOARDS

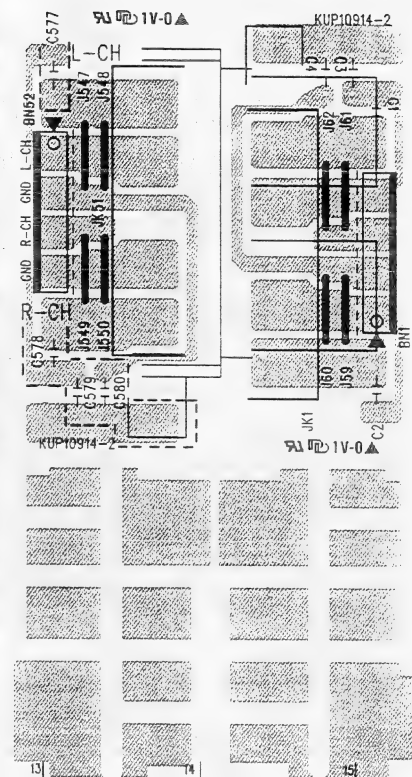
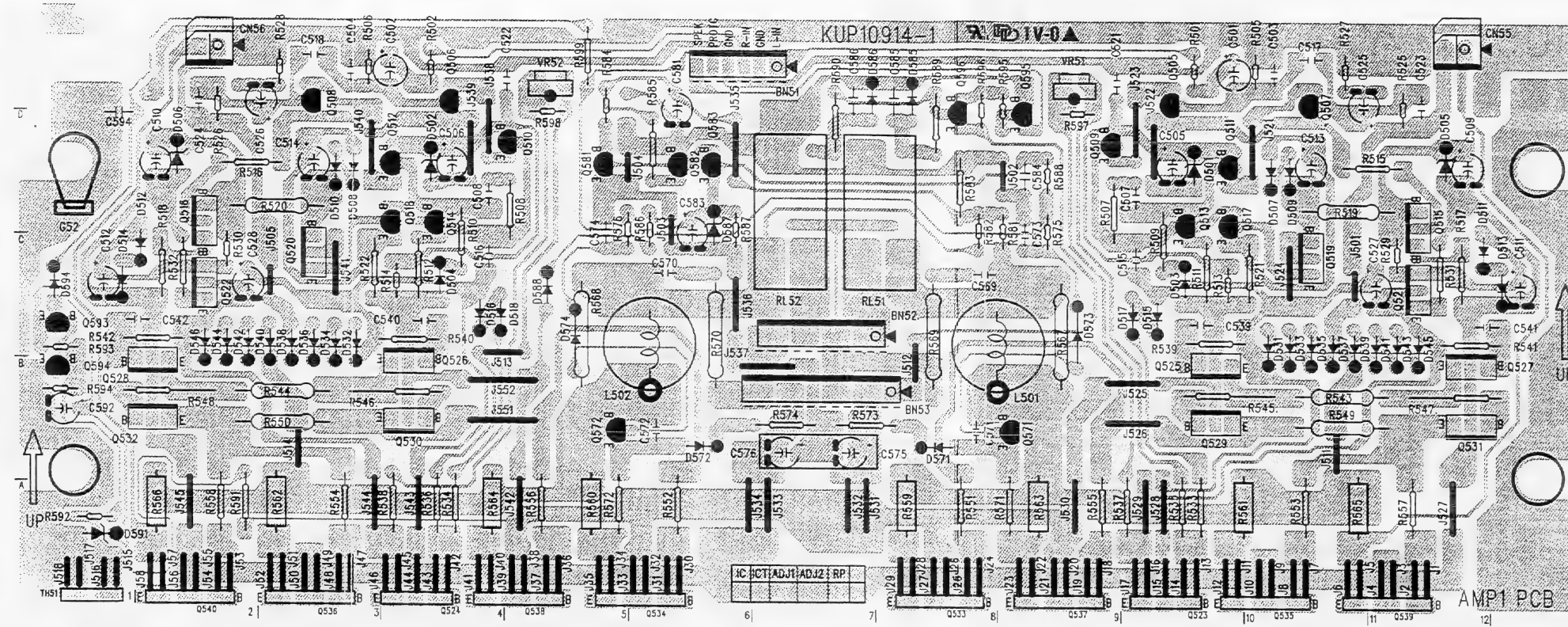
MAIN PCB



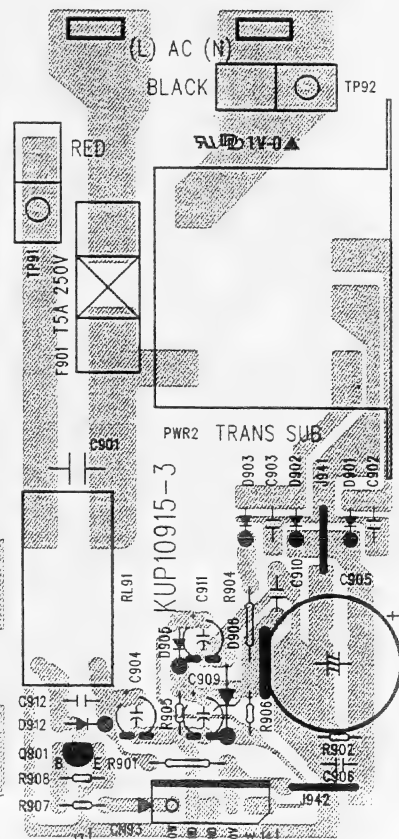
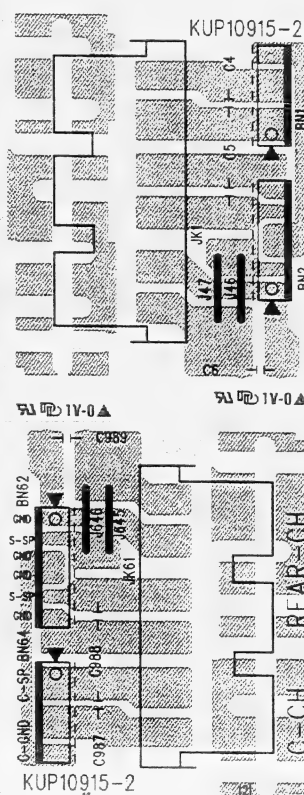
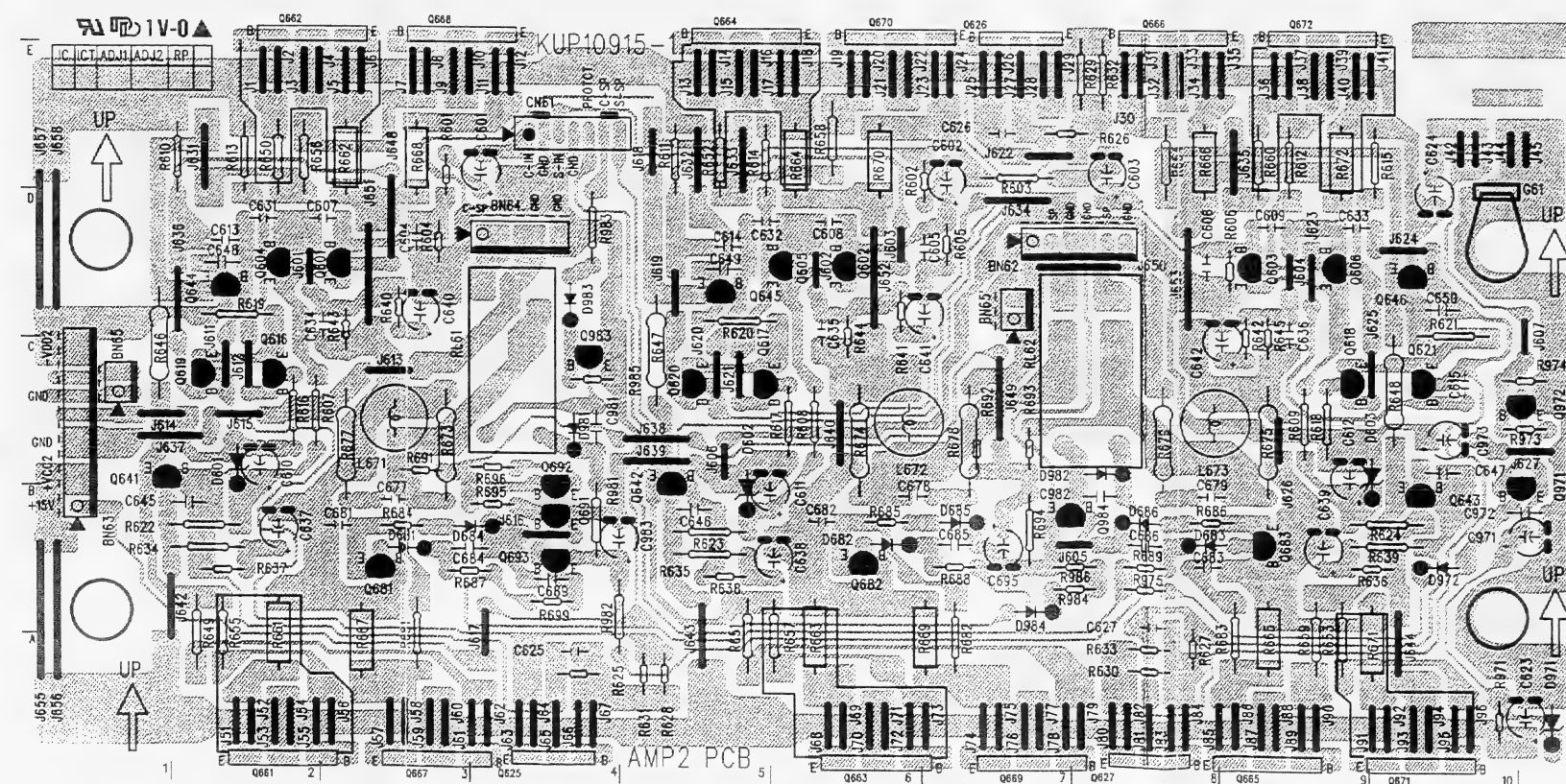
FRONT PCB



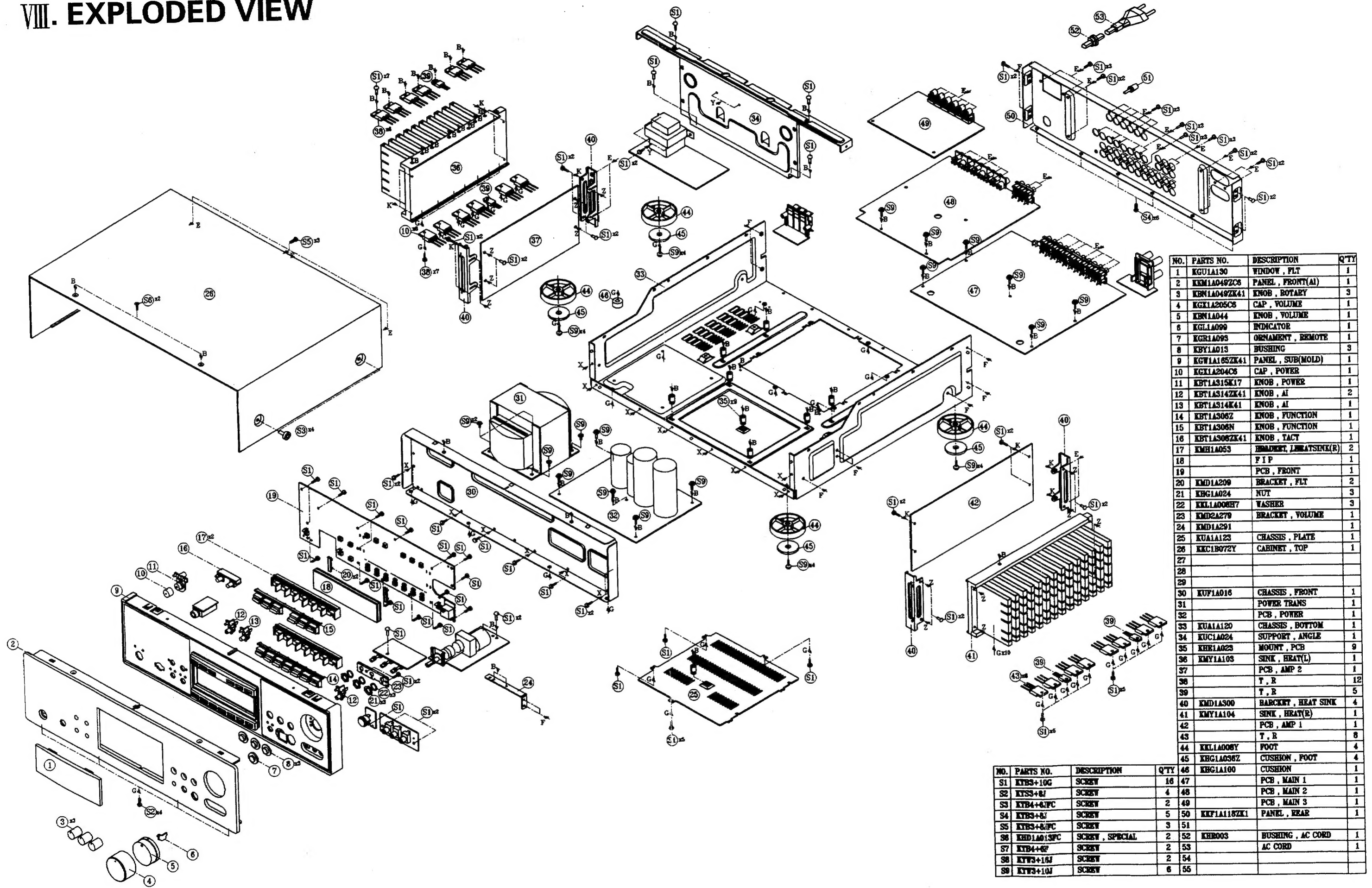
AMP1 PCB



AMP2 PCB



VIII. EXPLODED VIEW



NO.	PARTS NO.	DESCRIPTION	QTY
1	KGU1A130	WINDOW, FLT	1
2	KKM1A049ZC8	PANEL, FRONT(AI)	1
3	KBN1A049ZK41	KNOB, ROTARY	3
4	KGX1A205C8	CAP, VOLUME	1
5	KBN1A044	KNOB, VOLUME	1
6	KGL1A099	INDICATOR	1
7	KGR1A095	ORNAMENT, REMOTE	1
8	KBY1A013	BUSHING	3
9	KGW1A185ZK41	PANEL, SUB(MOLD)	1
10	KGX1A204C8	CAP, POWER	1
11	KBT1A315K17	KNOB, POWER	1
12	KBT1A314ZK41	KNOB, AI	2
13	KBT1A314K41	KNOB, AI	1
14	KBT1A306Z	KNOB, FUNCTION	1
15	KBT1A306N	KNOB, FUNCTION	1
16	KBT1A306ZK41	KNOB, TACT	1
17	KMH1A053	HEADSET, LINE/AT/SINK(R)	2
18		F I P	1
19		PCB, FRONT	1
20	KMD1A209	BRACKET, FLT	2
21	KHG1A024	NUT	3
22	KLL1A006H7	WASHER	3
23	KMD2A279	BRACKET, VOLUME	1
24	KMD1A291		1
25	KUA1A123	CHASSIS, PLATE	1
26	KKC1B072Y	CABINET, TOP	1
27			
28			
29			
30	KUF1A016	CHASSIS, FRONT	1
31		POWER TRANS	1
32		PCB, POWER	1
33	KUA1A120	CHASSIS, BOTTOM	1
34	KUC1A024	SUPPORT, ANGLE	1
35	KHE1A023	MOUNT, PCB	9
36	KMY1A103	SINK, HEAT(L)	1
37		PCB, AMP 2	1
38		T, R	12
39		T, R	5
40	KMD1A300	BRACKET, HEAT SINK	4
41	KMY1A104	SINK, HEAT(R)	1
42		PCB, AMP 1	1
43		T, R	8
44	KLL1A008Y	FOOT	4
45	KHG1A036Z	CUSHION, FOOT	4
46	KHG1A100	CUSHION	1
47		PCB, MAIN 1	1
48		PCB, MAIN 2	1
49		PCB, MAIN 3	1
50	KKF1A118ZK1	PANEL, REAR	1
51			
52	KHB003	BUSHING, AC CORD	1
53		AC CORD	1
54			
55			

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Q262	KVTDTA114YST	T.R	Q811	KVTDTA114YST	T.R
Q263	KVTDTC114YST	T.R	Q821~Q823	KVTDTA114YST	T.R
Q265	KVTDTC114YST	T.R	Q831~Q836	KVTDTA114YST	T.R
Q361	KVTKSC2316YT	T.R	Q893, 894	KVTKTD1302T	T.R
Q861~Q864	KVTKSA733CYT	T.R	Q897, 898	KVTKTD1302T	T.R
Q868	KVTDTA114YST	T.R	BN23	KWZAV350023	SHIELD WIRE ASS'Y
Q871~Q873	KVTDTA114YST	T.R	BN42	KWZAV350042	SHIELD WIRE ASS'Y
Q881	KVTDTC114YST	T.R	BN61	KWZAV350061	SHIELD WIRE ASS'Y
Q882	KVTDTA114YST	T.R	CN21	KJP11GA01ZM	WAFER
Q883	KVTDTC114YST	T.R	CN22	KJP06GA19ZM	WAFER
BN11	KWZAV350011	WIRE ASS'Y	CN25	KJP08GA01ZM	WAFER
BN12	KWZAV350012	SHIELD WIRE ASS'Y	CN27	KJP04GA01ZM	WAFER
BN21	KWZAV350021	WIRE ASS'Y	CN31	KJP10GA19ZM	WAFER
BN24	KWZAV350024	SHIELD WIRE ASS'Y	CN32	KJP06GA19ZM	WAFER
BN31	KWZAV350031	WIRE ASS'Y	CN41	KJP08GA19ZM	WAFER
BN32	KWZAV350032	SHIELD WIRE ASS'Y	CN51	KJP06GA19ZM	WAFER
CN42	KJP07GA10ZM	WAFER	CN72	KJP11GA01ZM	WAFER
CN43	KJP05GA19ZM	WAFER	CN73	KJP06GA01ZM	WAFER
IC11	KVIMC4558S	I.C	CN76	KJP04GA19ZM	WAFER
IC12	BVITC9163N	I.C	IC41	KVIMC4558S	I.C
IC13	BVILC4966	I.C	IC42	BVILC4966	I.C
IC21, 22	KVIMC4558S	I.C	IC42~Q48	KVIMC4558S	I.C
IC23	BVILC4966	I.C	IC81	BVIBA7626	I.C
IC24	KVIMC4558S	I.C	IC82	BVITC9174	I.C
IC31	KVILA2785	I.C, DOLBY	JK31	KJJ4R008Z	TERMINAL, IN/OUT
IC32	BVILV1010	I.C, SURROUND	JK32, 33	KJJ4S003Z	TERMINAL, IN/OUT
IC33, 34	KVIMC4558S	I.C	JK34	KJJ4N008Z	TERMINAL, INPUT
IC35	BVILC4966	I.C			
IC36, 37	KVIMC4558S	I.C			
IC85, 86	BVIBA7626	I.C			
IC87	KVIGD4066B	I.C			
R362	KRD50FJ330T	RES, CARBON			
JK11~JK13	KJJ4R008Z	TERMINAL, IN/OUT			
JK14	KJJ4R009Z	TERMINAL, IN/OUT			
JK81~JK86	BJJ9P001Z	CONNECTOR, DIN			
L301	KLQB101KLZ	COIL, INDICATOR			
L841	KLQB101KLZ	COIL, INDICATOR			
S101	KST1A010Z	SW, TACT			
X301	KOX08000D160C	CRYSTAL			
3. SUB PCB			4. AMP1 PCB		
D801~D805	KVD1N4148MT	DIODE	D501, 502	KVDMTZJ6.2BT	DIODE, ZENER
Q385~Q388	KVTKTD1302T	T.R	D503, 504	KVD1N4148MT	DIODE
Q397, 398	KVTKTD1302T	T.R	D505, 506	KVDMTZJ6.2BT	DIODE, ZENER
Q401	KVTDTA114YST	T.R	D507~Q518	KVD1N4148MT	DIODE
Q411	KVTDTC114YST	T.R	D531~Q546	KVD1N4148MT	DIODE
Q412	KVTDTA114YST	T.R	D571, 572	KVD1N4148MT	DIODE
Q413	KVTDTC114YST	T.R	D573, 574	KVD1A4148T	DIODE
Q435~Q438	KVTKTD1302T	T.R	D585, 586	KVD1N4148MT	DIODE
Q443, 444	KVTKTD1302T	T.R	D587	KVDMTZJ15BT	DIODE, ZENER
Q447, 448	KVTKTD1302T	T.R	D588	KVD1N4148MT	DIODE
Q493, 494	KVTKTD1302T	T.R	D591	KBVMTZJ15BT	DIODE, ZENER
Q805	KVTDTC114YST	T.R	D594	KVD1N4148MT	DIODE
Q807, 808	KVTKSA733CYT	T.R	Q505~Q508	KVTKTK117YT	F.E.T
			Q523, 524	BVT2SD1585L	T.R
			Q553, 534	BVT2SC3519A	T.R, POWER
			Q535, 536	BVT2SA1386A	T.R, POWER
			Q537, 538	BVT2SC3519A	T.R, POWER
			Q539, 540	BVT2SA1386A	T.R, POWER
			Q571, 572	KVTKSA1175YT	T.R
			Q581, 582	KVTKSC945CYT	T.R
			Q583	KVTDTA114YST	T.R
			Q593	KVTDTA114YST	T.R
			Q594	KVTKSC945CYT	T.R
			Q595	KVTDTA114YST	T.R
			Q596	KVTKSC945CYT	T.R

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Q509, 510	BVT2SC1841F	T.R	Q901	KVTKSC2785YT	T.R
Q511, 512	BVT2SC1841F	T.R	Q971	KVTDTA114YST	T.R
Q513, 514	BVT2SA1175HF	T.R	Q972	KVTKSC2785YT	T.R
Q515, 516	BVT2SC2682P	T.R	Q983, 984	KVTKSC2785YT	T.R
Q517, 518	BVT2SA1175HF	T.R	BN62	KWZAV350062	WIRE ASS'Y
Q519, 520	BVT2SA1142P	T.R	BN63	KWZAV350063	WIRE ASS'Y
Q521, 522	BVT2SC2682P	T.R	BN64	KWZAV350064	WIRE ASS'Y
Q525, 526	BVT2SC3423O	T.R	BN65	KWZAV350065	WIRE ASS'Y
Q527, 528	BVT2SA13600	T.R	CN61	KJP07GA19ZM	WAFER
Q529, 530	BVT2SC4883A	T.R, DRIVER	CN93	KJP05GA01ZM	WAFER
Q531, 532	BVT2SA1859A	T.R, DRIVER	C901	BCKWKC103MF	CAP, CERAMIC
BN51	KWZA350051	SHIELD WIRE ASS'Y	C905	KCEA1EH222E	CAP, ELECT
BN52	KWZA350052	WIRE ASS'Y	R646~R648	KGR1ANJ181H	RES, METAL OXIDE FILM
BN53	KWZA350053	WIRE ASS'Y	R661~R672	KRF5EKR22H	RES, CEMENT
CN55, 56	KJP02GB03ZM	WAFER	R673~R679	KRG1ANJ4R7H	RES, METAL OXIDE FILM
R519, 520	KRG1ANJ273H	RES, METAL OXIDE FILM	JK62	KJJ5R004Z	TERMINAL, SPEAKER
R543, 544	KRG1ANJ681H	RES, METAL OXIDE FILM	L671~L673	KLEYK1R8KA	COIL
R545~R548	KRG1ANJ100H	RES, METAL OXIDE FILM	PWR2	KLT5J021ZE	TRANS, SUB
R549, 550	KRG1ANJ471H	RES, METAL OXIDE FILM	RL61	KSL1A007ZE	RELAY
R559~R566	KRF5EKR22H	RES, CEMENT	RL62	BSL4A004ZU	RELAY
R567, 568	KRG2ANJ4R7H	RES, METAL OXIDE FILM	RL91	KSL1A007ZE	RELAY
RL51, 52	KSLIA007ZE	RELAY	TH61	BRTP4A471BC	THERMISTOR, PTC
JK51	KJJ5P009Z	TERMINAL, SPEAKER			
L501, 502	KLR9Y003Z	COIL, SPEAKER			
TH51	BRTP4A471BC	THERMISTOP, PTC			
	5. AMP2 PCB			6. POWER PCB	
L701	KLZ9H001Z	BEAD, CORE	D904	KVD1N4148MT	DIODE
L702	KLZ9I001Z	BEAD, CORE	D915	KVD1N4003SRT	DIODE, RECT
RC71	KRVSR5SP	SENSOR, REMOCON	D916	KVDUZ6.2BMT	DIODE, ZENER
D601~D603	KVDMTZJ15BT	DIODE, ZENER	D922	KVDUZ36BMT	DIODE, ZENER
D681~D683	KVD1N4148MT	DIODE	D955, 956	KVD1N4148MT	DIODE
D684~D686	KVD1N4148MT	DIODE	D921	BVDKBPC2504MF	DIODE, BRIDGE
D901~D903	KVD1N4003SRT	DIODE, RECT	D931	BVDPBPC1003F	DIODE, BRIDGE
D905	KVD1N4148MT	DIODE	D941	BVD2W02GF	DIODE, BRIDGE
D906	KVDUZ5.1BMT	DIODE, ZENER	Q911	KVTDTC144EST	T.R
D912	KVD1N4148MT	DIODE	Q912	KVTKSA916YT	T.R
D971	KVDMTZJ15BT	DIODE, ZENER	Q913	KVTDTA114YST	T.R
D972	KVD1N4148MT	DIODE	BN93	KWZAV350093	WIRE ASS'Y
D981~D984	KVD1N4148MT	DIODE	CN11	KJP06GA01ZM	WAFER
Q601~Q606	KVTKSA992FT	T.R	CN53	KJP10GA01ZM	WAFER
Q616~Q621	KVTKSC2785YT	T.R	CN63	KJP10GA01ZM	WAFER
Q625~Q627	BVT2SD1585L	T.R	CN71	KJP09GA19ZM	WAFER
Q641~Q643	KVTKSC2316YT	T.R	WP94, 95	KJP03GA65ZP	WAFER
Q644~Q646	KVTKSA916YT	T.R	C927, 928	KCET75VAM103R	CAP, ELECT
Q661, 663	KVTKTD9980	T.R	C929, 930	KCKW2H103PE	CAP, CERAMIC
Q665, 667			C937, 938	KCET63VAM822N	CAP, ELECT
Q669, 671			C947, 948	KCEA1VH332E	CAP, ELECT
Q662, 664	KVTKTB7780	T.R	IC91	KVIM7805C	I.C
Q666, 668			IC93	KVIM7815C	I.C
Q670, 672			IC94	KVIM7915C	I.C
Q681~Q683	KVTKSA1175YT	T.R	IC95, 96	KVIM7805C	I.C
Q691, 692	KVTKSC2785YT	T.R	R927, 928	KGR1ANJ123H	RES, METAL OXIDE FILM
Q693	KVTDTA114YST	T.R	R941, 942	KRQ1CJR47	RES, FUSE
			R957	KRQ1CJ100	RES, FUSE